

NASA Weekly Update

Week of July 24 - 31, 2006

7-31: NASA's Space Shuttle Atlantis Prepares to Roll to Launch Pad: NASA's Space Shuttle Atlantis is set to embark on a four-mile journey to Launch Pad 39-B at NASA's Kennedy Space Center, Fla. Due to weather conditions, the scheduled roll out was delayed. The new target time for first motion is set for no earlier than 10:00 p.m. EDT tonight. The launch window opens Aug. 27.



In the Vehicle Assembly Building, the orbiter Atlantis awaits its four-mile journey to Launch Pad 39-B

For NASA TV downlink, schedule and streaming video information, visit: <http://www.nasa.gov/ntv>. For information about the STS-115 mission and its crew, visit: <http://www.nasa.gov/shuttle>.

7-31: NASA's Next Space Shuttle Crew Ready For Countdown Test: The astronauts and ground crews for Space Shuttle Atlantis' upcoming mission, STS-115, will participate in a full launch dress rehearsal Aug. 7-10 at NASA's Kennedy Space Center, Fla.

7-28: NASA Awards Launch Services for Lunar

Mission: NASA announced today the award of launch services for the Lunar Reconnaissance Orbiter mission to Lockheed Martin Commercial Launch Services Inc. of Littleton, Colorado.

7-28: Cassini Finds Lakes on Titan's Arctic Region:

NASA's Cassini spacecraft has found lakes on Saturn's moon Titan. The lakes are most likely the source of hydrocarbon smog in the frigid moon's atmosphere. For images of the lakes and more information, visit: <http://www.nasa.gov/cassini>.

7-27: NASA Exploration Systems Progress Report:

NASA engineers around the country recently completed tests associated with rocket engines, heat protection systems and spacesuits destined for use in the Constellation Program of moon and Mars missions. For information about NASA's exploration efforts, visit: <http://www.nasa.gov/exploration>.

7-26: NASA Awards Contracts for Constellation

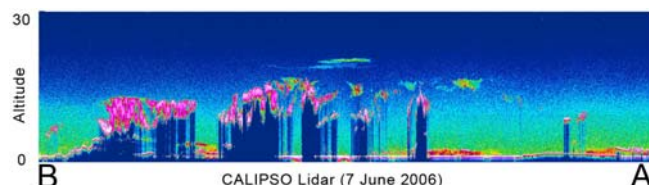
Program Study: NASA has awarded a 90-day study contract to four space-related companies to separately examine long-term ground processing and infrastructure planning for the agency's Constellation Program. Contract awardees are: ATK Launch Systems Group, Corrine, Utah; Boeing Space Operations Co., Titusville, Fla.; Lockheed Martin Space Systems Company, Littleton, Colo., and United Space Alliance, Houston. For information about NASA's exploration efforts, visit: <http://www.nasa.gov/exploration>.

7-26: NASA Africa Mission Investigates Origin,

Development of Hurricanes: Scientists from NASA, the National Oceanic and Atmospheric Administration, universities and international agencies will study how winds and dust conditions from Africa influence the birth of hurricanes in the Atlantic Ocean. For more information about NASA's hurricane research, visit: <http://www.nasa.gov/hurricane>.

7-26: Atlantis Astronauts Available to Discuss Next Shuttle Mission: Astronauts who will fly on the space shuttle Atlantis in late August to resume construction of the International Space Station will conduct live television interviews Aug. 2 to 4. Atlantis' astronauts who will be interviewed include Commander Brent Jett, Pilot Chris Ferguson, and Mission Specialists Daniel Burbank, Heide Stefanyshyn-Piper, and Steve MacLean. For schedule and downlink information about NASA Television, visit: <http://www.nasa.gov/ntv>.

7-25: NASA Announces Briefings about Next Shuttle Mission: NASA will preview the next space shuttle mission in a series of media briefings Friday, Aug. 11. Space Shuttle Atlantis' mission, designated STS-115, is targeted for late August and will resume construction of the International Space Station. The briefings will originate from NASA's Johnson Space Center in Houston and be carried live on NASA TV beginning at 9 a.m. EDT. For NASA TV schedules, downlink information and links to streaming video, visit: <http://www.nasa.gov/ntv>.



A lidar profile from the CALIPSO spacecraft, specifically the 523 nanometer Total Attenuated Backscatter.

7-24: NASA Releases Initial Images From CALIPSO: The Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation spacecraft known as CALIPSO is returning never-before-seen images of clouds and aerosols, tiny particles suspended in the air. To see the satellite's initial images, visit: <http://www.nasa.gov/calipso>.

Astronauts Jeff Williams and Thomas Reiter will leave the station's Quest airlock hatch at 9:55 a.m. EDT Thursday, Aug. 3, for a spacewalk scheduled for six hours, 20 minutes. Station Commander Pavel Vinogradov will serve as the spacewalk choreographer from inside the complex. NASA TV coverage of the spacewalk will begin at 9 a.m. EDT.

Williams and Reiter are both experienced spacewalkers. They will install a device to measure the electrical field around the station's exterior; replace a rotary joint motor controller and a computer for a radiator on the station's truss; deploy two experiments that expose samples of various materials to space for extended periods; and install various other hardware on the station.

This week the crew also began operations of the new Minus Eighty-degree Laboratory Freezer for ISS. The equipment can reach temperatures as low as minus 112 degrees Fahrenheit. Provided by the European Space Agency, the freezer was delivered on shuttle mission STS-121 earlier this month and is installed in the Destiny laboratory. It has 300 liters (about 79 gallons) of freezing and storage capacity in four compartments for experiment samples to preserve them for return to Earth.

On Tuesday, Russian flight controllers fired thrusters on the Progress supply ship docked to the aft end of the station to boost the station's altitude. They raised the complex to an orbit of 219 by 203 statute miles. The adjustment optimizes conditions for a docking by the Space Shuttle Atlantis, targeted for a launch window that begins Aug. 27, and by the station's next crew, Expedition 14, set for launch in mid-September on a Russian Soyuz rocket.

For more information about the crew's activities and station sighting opportunities, visit: <http://www.nasa.gov/station>.

Weekly Status Reports



The International Space Station's Expedition 13 crew members are a week away from their first U.S. spacewalk. They spent much of this week preparing



- **Aug 3:** Expedition 13 EVA -- NASA TV Coverage at 9AM EDT
- **Aug 11:** STS-115 Media Briefings -- NASA TV Coverage starts at 9AM EDT
- **NET Aug 27:** Space Shuttle Atlantis STS-115 mission
- **NET Aug 31:** STEREO launch

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